



Billing Code 4140-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Government-Owned Inventions; Availability for Licensing

AGENCY: National Institutes of Health, HHS.

ACTION: Notice

SUMMARY: The inventions listed below are owned by an agency of the U.S.

Government and are available for licensing in the U.S. in accordance with 35 U.S.C. 209 and 37 CFR Part 404 to achieve expeditious commercialization of results of federally-funded research and development.

FOR FURTHER INFORMATION CONTACT: Licensing information may be obtained by emailing the indicated licensing contact at the National Heart, Lung, and Blood, Office of Technology Transfer and Development Office of Technology Transfer, 31 Center Drive Room 4A29, MSC2479, Bethesda, MD 20892-2479; telephone: 301-402-5579. A signed Confidential Disclosure Agreement may be required to receive any unpublished information.

SUPPLEMENTARY INFORMATION: Technology description follows.

Antagonists of Hyaluronan Signaling for Treatment of Airway Diseases, such as Asthma and Chronic Obstructive Pulmonary Disease (COPD), constitute a major health burden in the development word. It is estimated that nearly 15.0% of the adult population in the US are affected with such diseases, and the economic cost burden is over \$23 billion annually. Unfortunately, the current options for treatment of such diseases are quite limited, consisting only of bronchodilators and inhaled steroids. The need for a novel and

more effective class of therapeutics agents is imperative. The subject invention provides for a potentially more specific and effective treatment of airway diseases as compared with existing treatments. It is based on the inhibition of Hyaluronan (HA), a structural polysaccharide that plays a role in the signaling pathway that leads to the onset of airway diseases. Such inhibition blocks the development of airway inflammation and airway hyperresponsiveness (AHR), two of the components associated with airway diseases, and thus may be useful in the treatment of such diseases. The invention discloses two antagonists of HA, i.e. heparosan, and Hyaluronan oligosaccharides (oHAs). Their administration to a human subject in need can be accomplished *via* the use of an inhaler or nebulizer.

Potential Commercial Applications:

- Treatment of Airway Diseases

Development Stage:

- *In Vitro* data available

Inventors: Stavros Garantziotis (NIEHS), John Hollingsworth (Duke), Brian P. Toole (UMSC), Jian Liu (UNC)

Intellectual Property: HHS Reference E-080-2012: Issued Patents: US Patent No.

9,717,752 issued 08/01/2017; European Patent No. 2827877 issued 05/08/2019 and validated in Germany, France, and the United Kingdom. Pending application: Canadian Patent Application No. 2872569 filed 03/08/2013.

Licensing Contact: Uri Reichman, Ph.D, MBA, 301-435-4616; uri.reichman@nih.gov.

Dated: September 17, 2019.

Uri Reichman Sr.,

*Senior Licensing and Patenting Manager,
National Heart, Lung, and Blood Institute,
Office of Technology Transfer and Development.*

[FR Doc. 2019-20993 Filed: 9/26/2019 8:45 am; Publication Date: 9/27/2019]